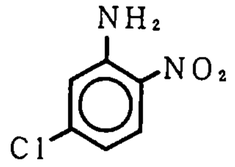
5-Chloro-2-nitroaniline (5-クロロ-2-ニトロアニリン)

Chemical Name: 5-Chloro-2-nitroaniline
Synonym Benzenamine, 5-chloro-2-nitro-
Molecular weight: 172.6
Melting point: 128-129℃
Boiling point: ℃

Chemical Structure



CAS No : 1635-61-6
MITI No : (3)-407
Source of Substance: Tokyo Kasei Kogyo Co., Ltd.
Lot.No.: AX01
Purity: 99.9%
Vehicle: DMSO

Judgement for
Chromosomal Aberration in CHL: Positive

IARC Evaluation : not yet cited

Experimental Data

	Treated Time (Hr)	Concentration (mg/ml)	No. of Metaphase	Polyploid (%)	Judge	Cell with Structural Chromosome Aberration (%) Gap	CTB	CTE	CSB	CSE	Total -G	Total +G	Judge
DMSO	24		200	0.5	−	1.0	0.5	1.0	0	0	1.5	2.5	−
	48		200	0	−	0	0	0.5	0	0	0.5	0.5	−
Test Chemical													
	24	0.04	200	3.0	−	0	0	1.5	0	0.5	2.0	2.0	−
		0.08	200	1.5	−	0.5	0	2.5	0	0	2.5	3.0	−
		0.12	200	0.5	−	1.0	0	1.0	0	0	1.0	2.0	−
		0.16	110	0	−	0.9	2.7	0.9	0	0	2.7	4.5	−
		0.20											
	48	0.04	200	4.0	−	0	0.5	0.5	0	0.5	1.5	1.5	−
		0.08	200	12.0	+	0.5	0	0.5	0	0	0.5	1.0	−
		0.12	24	8.3	±	0	0	0	0	0	0	0	−
		0.16				No observation for metaphase							
		0.20				No observation for metaphase							
Positive Control													
(MMC)	24		200	0.5	−	2.5	10.0	47.0	0	0	50.0	50.5	+
	48		200	0	−	4.0	13.5	70.5	0	0	71.0	71.0	+

Experimental Data

	Treated Time (Hr)	Concentration (mg/ml)	No. of Metaphase	Polyploid (%)	Judge	Cell with Structural Chromosome Aberration (%) Gap	CTB	CTE	CSB	CSE	Total -G	Total +G	Judge
DMSO	48		200	0.5	−	0.5	1.0	0.5	0	0	1.5	2.5	−
Test Chemical													
	48	0.030	200	4.5	−	0	0	1.0	0	0	1.0	1.0	−
		0.060	200	11.0	+	0.5	0	0	0	0	0	0.5	−
		0.090	200	14.0	+	0	0.5	1.0	0	0.5	1.5	1.5	−
		0.12	164	11.0	+	0.6	0	1.2	0	0	1.2	1.8	−
		0.15	No observation for metaphase										
Positive Control (MMC)	48		200	1.0	−	3.5	12.0	48.5	0	0	52.0	52.5	+

Experimental Data

	S 9 with or without	Concentration (mg/ml)	No. of Metaphase	Polyploid (%)	Judge	Cell with Structural Chromosome Aberration (%) Gap	CTB	CTE	CSB	CSE	Total -G	Total +G	Judge
DMSO	−		200	0.5	−	0.5	1.0	0	0	0	1.0	1.5	−
	+		200	0	−	0	0.5	0.5	0	0	1.0	1.0	−
Test Chemical													
	−	0.025	200	7.0	±	0.5	0	0.5	0	1.0	1.5	2.0	−
		0.05	200	9.5	±	0.5	0	0	0	0	0	0.5	−
		0.1	200	9.5	±	0.5	0.5	0.5	0	0	1.0	1.5	−
		0.2	200	0.5	−	0.5	2.0	5.5	0	0	7.5	8.0	±
		0.4	No observation for metaphase										
	+	0.025	200	2.0	−	0	1.0	1.5	0	0	2.5	2.5	−
		0.05	200	2.5	−	0.5	0.5	7.5	0	1.0	9.0	9.0	±
		0.1	200	5.0	±	0.5	0	6.5	0	0	6.5	7.0	±
		0.2	200	4.5	−	1.0	1.0	6.0	0	0.5	7.5	8.5	±
		0.4	184	2.7	−	2.2	3.8	14.0	0	0.5	17.9	19.0	+
Positive Control (CP)	−		200	0	−	1.0	0	0.5	0	0	0.5	1.5	−
	+		200	0	−	2.5	7.5	55.5	0	0.5	58.0	58.0	+

Metaphase was not observed at the concentration of 0.6mg/ml.